



where the poor of England today live in what Ned Ludd would have thought of as luxury. They could not tell that power equipment was freeing man from an eternity of menial work. They could not tell that the destruction of property was immoral. All that the Luddites could perceive was machinery changing their traditional way of life and their traditional view of the world.

We in computing are being assailed by modern Luddites in all manner of disguises. One group, generally disguised as religious leaders, call for us to respect the "human dignity of work". They go to great lengths to praise the uplifting moral consequence of hard physical labor. This is a false argument. There is nothing more dehumanizing than trading raw, human, physical labor for money.

COMMENTARY

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The June issue of SCIENCE 84 contained a review of the book Common Animals of Roads, Streets and Highways: A Field Guide to Flattened Fauna by Roger Knutson. This description of a frequently flattened animal reminds me of the Luddites who stand in the path of progress.

"... the striped skunk is one of the most commonly run-over mammals, because of a skunk's natural defensive tactic. It stands its ground and ejects its notorious odor. Unfortunately for skunks, such a stand can be its last, as it does nothing to repel an on-coming pickup."

Luddites are always crushed by onrushing progress, but they can certainly raise a stink in the process.

Luddites are the followers of the philosophy of Ned Ludd. Ned Ludd lived in England in the late eighteenth century. He is described in the Oxford dictionary as a "half-witted Leicestershire workman who destroyed stocking frames". Ned Ludd and his followers attempted to stop the industrial revolution by raiding factories and smashing the stocking knitting machinery that had deprived Ned of a job. The Luddites expanded their hit list from knitting machinery to power looms, spinning jennies and any other form of automation. Ned Ludd died in his attempt to halt the progress of industrialization (he was hanged in 1779), but he raised such a stink, that his name has been associated for two centuries with people who try to halt progress.

Ned Ludd took an incredibly selfish, personal, shortsighted, radical stand against progress. The Luddites could not tell that power machinery enriched the lives of everyone in England and throughout the world by lowering the cost of clothing and other textiles. They could not tell that industrialization would expand the economy to the point

I worked my way through college at a foundry where my job was to take molded parts out of a machine, inspect them, smooth off flaws and stack the parts in bins. It was a job that could have easily been done with a machine. While I took some pride in doing my job well, I never felt that there was any particular human dignity involved in my work. The foundry needed a human to run an incompletely automated process, I needed the money to fund my education. It was a fair trade, but not an experience to be relished or thought of as "uplifting".

The jobs we perform in data processing have much more human dignity. They are the jobs that are not routine. They are the jobs that only a human being can perform. I know that the AI community will take exception to this assertion, but computers can only be used to take over tasks that are routine, tedious, boring and dehumanizing. Writing a program or building a system that does a job better than a person could, is something that adds profoundly to the human dignity of work. It frees people from jobs that are drudgery, to perform jobs that really require a person.

A secular group of Luddites has recently been attacking home computer users on the grounds that they spend "too much" time interacting with their computers, instead of interacting with other people.

These Luddites fail to consider that most home computer users, if they were not at their keyboards, would be parked in front of their televisions interacting neither with a machine or people. Writing programs develops the mind. It encourages people to think in a clear, logical manner. The computer rewards such thinking with correct results and punishes its absence with gibberish. Even playing games sharpens the mind and eye to look for familiar or recurring patterns, quickens reflexes and increases hand/eye coordination. At its worst, hacking with computers is much more intellectually stimulating than watching another rerun of "Fantasy Island".

In fact, many hackers use their computers to increase communications with other people. Many hackers spend lots of time logged into bulletin board facilities where they can communicate with people across town or across the country. An on-line bulletin board is a quick and easy way for people to solicit communications with others who share similar interests. Such electronic mail systems are the best way for people in different time zones or on different schedules to communicate with each other.

These are just a few of the arguments advanced by Luddites to hold back the progress of computing. All of the arguments are, at best, ill-informed. The only way to counteract such arguments is to get the facts out, to get people to look beyond their personal fears and prejudices. As the major element in industrial progress today, it is important that people in computing communicate with the general public to combat the false arguments of the Luddites. Even if we are riding the pickup truck of progress, we should try to minimize the stink. It could make the trip a lot more pleasant.